

Scaled data based on original data using  
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or  
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: E395854

Luminaire Tested: **H600-1636BA**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number: E395854  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H600-1636BA  
Description: HALO RECESSED INC. COILEX BAFFLE, 30 DEG. TILT  
Light Source: 150R40SP, 1900 LUMENS  
Ballast/Driver: -

**Summary**

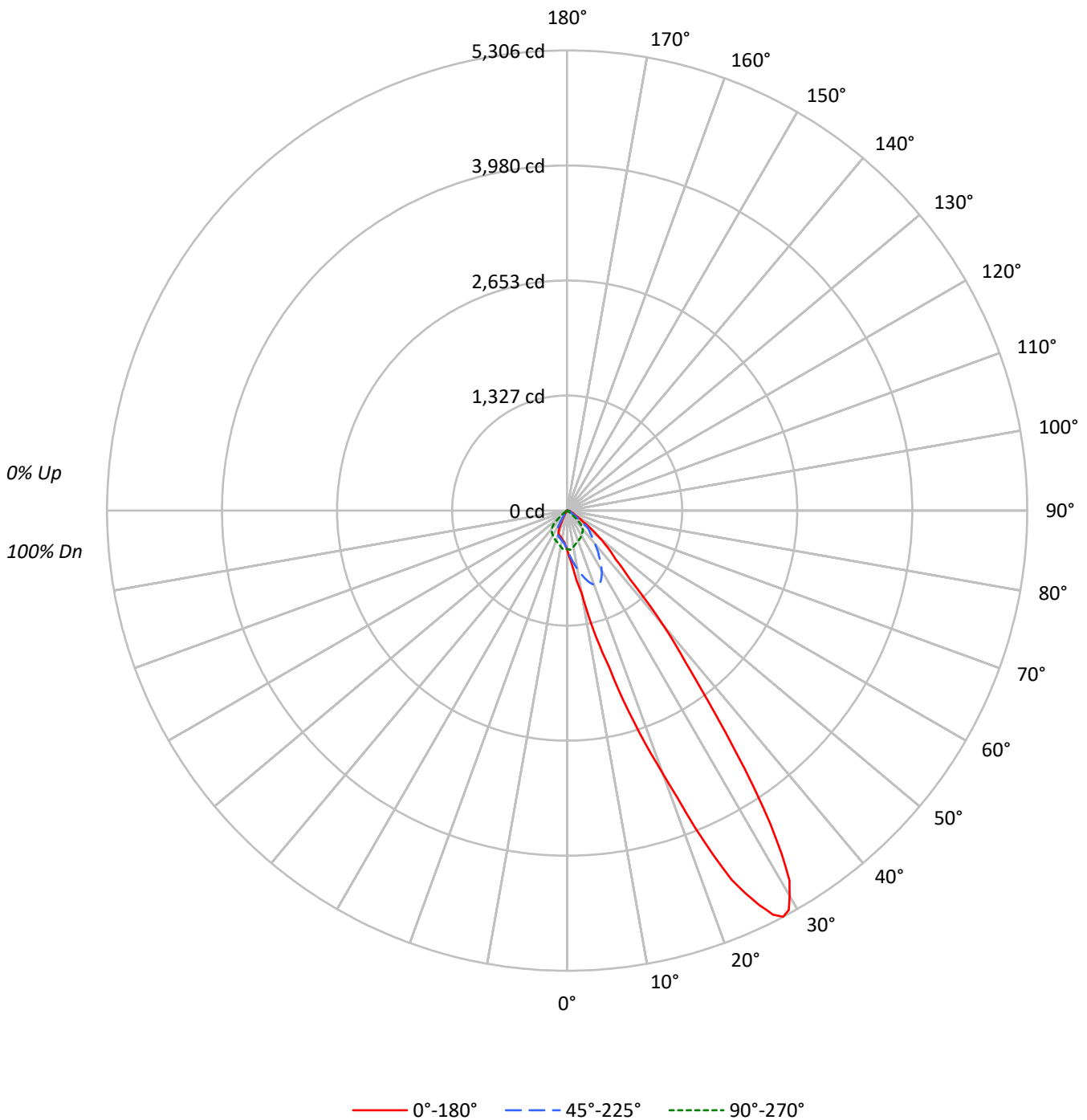
Lumens per Lamp: 1900 (1 lamp)  
Luminaire Lumens: 1433.1 lumens  
Efficiency: 75.4%  
Efficacy: 9.6 lumens/watt  
Spacing Criteria (0/90/45): 1.83 / 1.12 / 1.23  
Luminous Opening: (L: 0 ' x W: -0.52 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 150  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
RC	80				70				50				30				10	0		
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	90	90	90	90	88	88	88	88	84	84	84		80	80	80		77	77	77	75
1	85	82	80	78	83	80	78	76	77	76	74		74	73	72		72	71	70	68
2	79	75	71	68	77	73	70	67	71	68	65		68	66	64		66	64	63	61
3	74	68	63	60	72	67	63	59	65	61	58		63	60	57		61	58	56	55
4	69	62	57	53	68	61	56	53	59	55	52		58	54	51		56	53	51	49
5	64	57	51	47	63	56	51	47	55	50	47		53	49	46		52	49	46	45
6	60	52	47	43	59	51	46	42	50	46	42		49	45	42		48	44	42	40
7	56	48	42	39	55	47	42	38	46	42	38		45	41	38		44	41	38	36
8	53	44	39	35	52	44	39	35	43	38	35		42	38	35		41	37	34	33
9	50	41	36	32	49	40	35	32	40	35	32		39	35	32		38	34	31	30
10	47	38	33	29	46	38	33	29	37	32	29		36	32	29		36	32	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	46.8	3.3	2.5
10°-20°	195.2	13.6	10.3
20°-30°	449.0	31.3	23.6
30°-40°	416.7	29.1	21.9
40°-50°	200.0	14.0	10.5
50°-60°	77.0	5.4	4.1
60°-70°	27.7	1.9	1.5
70°-80°	14.7	1.0	0.8
80°-90°	5.6	0.4	0.3
90°-100°	0.4	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	690.9	48.2	36.4
0°-40°	1107.7	77.3	58.3
0°-60°	1384.7	96.6	72.9
0°-90°	1432.7	100.0	75.4
90°-120°	0.4	0.0	0.0
90°-150°	0.4	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1433.1	100.0	75.4

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	444	444	444	444	444	
5°	611	558	453	379	367	69
15°	1868	815	392	327	307	592
25°	4872	907	352	279	188	2177
35°	3377	636	307	57	26	2103
45°	787	385	213	18	13	687
55°	231	139	26	11	11	236
65°	77	44	13	9	9	76
75°	36	22	6	6	6	39
85°	17	8	2	2	2	16
90°	8	1	1	0	1	5
95°	0	0	0	0	0	2
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	20°	22.5°	25°	30°
0°	444	444	444	444	444	444	444	444	444	444	444
5°	611	610	619	615	618	617	610	609	607	597	593
10°	974	966	965	972	938	928	930	906	877	858	811
15°	1868	1860	1847	1826	1766	1675	1669	1522	1454	1360	1211
17.5°	2544	2498	2454	2414	2353	2271	2160	1944	1822	1692	1439
20°	3227	3230	3224	3102	3031	2904	2750	2404	2206	2040	1680
21°	3549	3604	3490	3402	3375	3142	3022	2577	2389	2162	1765
22°	3946	3977	3851	3742	3565	3434	3232	2756	2554	2302	1828
23°	4313	4307	4204	4070	3852	3719	3463	2939	2696	2401	1899
24°	4657	4510	4540	4327	4154	3912	3680	3109	2775	2485	1954
25°	4872	4835	4693	4594	4381	4137	3859	3203	2892	2567	1980
26°	5062	5048	4939	4771	4569	4290	3982	3302	2962	2621	1992
27°	5230	5214	5100	4930	4701	4408	4085	3358	2993	2638	1987
28°	5306	5279	5172	4993	4744	4445	4117	3359	2982	2617	1960
29°	5268	5235	5133	4956	4723	4420	4085	3314	2933	2570	1906
30°	5131	5167	5018	4860	4595	4303	3971	3234	2863	2504	1828
31°	4977	4930	4834	4676	4385	4101	3798	3064	2720	2380	1755
32°	4664	4607	4527	4375	4125	3862	3610	2911	2544	2235	1675
33°	4301	4233	4166	4043	3821	3595	3321	2672	2345	2070	1564
34°	3843	3791	3761	3665	3560	3251	3073	2466	2143	1878	1434
35°	3377	3407	3308	3232	3163	2961	2710	2189	1932	1760	1306
36°	2930	3087	2962	2789	2735	2563	2355	1949	1774	1566	1182
37°	2544	2659	2546	2498	2347	2206	2034	1680	1555	1381	1060
38°	2212	2279	2239	2141	2002	1940	1815	1513	1354	1219	979
39°	1981	1952	1956	1906	1763	1683	1557	1295	1177	1066	888
40°	1719	1656	1652	1606	1518	1414	1374	1110	1056	926	789
42.5°	1073	1077	1088	1051	991	961	905	831	770	722	625
45°	787	760	762	744	726	686	678	623	600	579	541
50°	493	493	493	489	487	472	465	451	437	424	394
55°	231	225	223	222	220	210	204	199	195	186	177
60°	107	110	108	108	108	105	112	100	92	89	86
70°	47	47	47	47	46	45	45	44	42	41	39
80°	26	26	26	25	25	25	24	24	23	22	20
90°	8	9	7	7	8	7	6	5	5	4	3
95°	0	0	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	20°	22.5°	25°	30°
150°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	35°	40°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	444	444	444	444	444	444	444	444	444
5°	584	569	558	504	453	405	379	367	367
10°	761	729	687	534	424	371	348	337	334
15°	1043	917	815	532	392	347	327	313	307
17.5°	1232	1031	871	521	381	338	315	302	300
20°	1383	1115	911	505	371	328	303	293	287
21°	1416	1142	921	499	368	325	298	287	277
22°	1455	1160	924	491	365	321	295	278	261
23°	1488	1169	923	481	361	318	292	264	242
24°	1505	1171	918	470	357	312	287	241	223
25°	1509	1164	907	460	352	308	279	218	188
26°	1503	1150	892	451	348	305	267	185	147
27°	1484	1131	871	442	345	301	249	154	112
28°	1457	1100	846	435	340	298	233	120	84
29°	1408	1060	825	426	335	295	210	91	71
30°	1366	1025	793	420	329	289	177	70	53
31°	1299	982	770	413	324	280	145	55	42
32°	1224	932	735	409	320	272	115	45	36
33°	1148	885	705	401	317	261	91	37	31
34°	1070	837	672	395	312	245	69	33	29
35°	1001	785	636	387	307	224	57	28	26
36°	940	749	616	379	302	196	45	26	23
37°	858	701	586	370	297	176	38	24	21
38°	783	653	558	364	291	149	32	21	19
39°	725	619	527	356	286	123	29	20	18
40°	665	579	499	347	280	102	27	19	18
42.5°	571	506	437	322	252	51	21	16	15
45°	489	431	385	303	213	35	18	14	13
50°	364	343	313	193	92	19	13	12	11
55°	167	151	139	54	26	14	11	11	11
60°	77	67	58	30	17	11	10	10	10
70°	36	33	29	16	9	8	8	9	8
80°	19	16	15	5	3	3	4	4	3
90°	2	1	1	0	1	0	0	0	1
95°	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0





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**CANDELA DISTRIBUTION (continued):**

	35°	40°	45°	67.5°	90°	112.5°	135°	157.5°	180°
150°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)